COMPLETE LISTING OF THE CLAIMS

The following lists all of the claims that are or were in the above-identified patent application. The status identifiers respectively provided in parentheses following the claim numbers indicate the current statuses of the claims.

1.   (Canceled)

2.   (Currently Amended) A method of generating a CRC for a composite sub-message based on a CRC generating polynomial having at least two factors, the composite sub-message including sub-message data and a number, n, of trailing zeros, the method comprising:

generating a first remainder based on the sub-message data and a first factor of the CRC generating polynomial;

generating a second remainder based on the sub-message data and a second factor of the CRC generating polynomial;

adjusting at least one of the first and second remainders based on the number, n, of trailing zeros in the composite sub-message; and

generating the CRC for the composite sub-message based on adjusted

versions of the first and second remainders-;

wherein the first remainder is an m-bit remainder, and wherein the adjusting step

comprises:

storing the first remainder in an m-bit memory location;

examining each bit of N, where N equals n mod (2.sup.m-1); and

selectively advancing the contents of the m-bit memory location to a next state

based on a value of each bit of N, the next state determined by a Galois field defined by the

first factor.

3.   (Canceled)

4.   (Currently Amended) The method of claim [[3]] 2, wherein the second remainder is

adjusted in substantially the same manner as the first remainder.

5.   (Currently Amended) ~~The method of claim 2,~~ A method of generating a CRC for a composite sub-message based on a CRC generating polynomial having at least two factors, the composite sub-message including sub-message data and a number, n, of trailing zeros, the method comprising:

generating a first remainder based on the sub-message data and a first factor of the CRC generating polynomial;

generating a second remainder based on the sub-message data and a second factor of the CRC generating polynomial;

adjusting at least one of the first and second remainders based on the number, n, of trailing zeros in the composite sub-message; and

generating the CRC for the composite sub-message based on adjusted versions of the first and second remainders;

wherein the first remainder is an m-bit remainder, and wherein the adjusting step comprises:

storing the first remainder in an m-bit memory location; and

examining each bit of N, where N equals n mod (2.sup.m-1), in order from a most significant bit to a least significant bit; the examining act for each examined bit comprising:

finite field squaring the contents of the m-bit memory location, and;

if the examined bit equals one, advancing the contents of the m-bit memory location to a next state as determined by a Galois field defined by the first

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factor.

6.   (Original) The method of claim 5, wherein the second remainder is adjusted in

substantially the same manner as the first remainder.

7-8.   (Canceled)

9.   (Previously Presented) A method of generating a CRC for a composite sub-message

based on a CRC generating polynomial having at least two factors, the composite

sub-message including sub-message data and a number, n, of trailing zeros, the

method comprising:

generating a first remainder based on the sub-message data and a first factor

of the CRC generating polynomial, wherein the step of generating a first remainder

comprises:

dividing the sub-message data by the CRC generating polynomial, thereby

generating an unadjusted composite remainder; and

dividing the unadjusted composite remainder by the first factor, thereby

generating the first remainder;

generating a second remainder based on the sub-message data and a second factor of the CRC generating polynomial; and

generating the CRC for the composite sub-message based on adjusted versions of the first and second remainders.

10.   (Original) The method of claim 9, wherein the step of generating a second remainder comprises:

dividing the unadjusted composite remainder by the second factor, thereby generating the second remainder.

11-20 (Canceled).